

Department of the Interior

U.S. Geological Survey

Northwest Climate Science Center

FY 2012 Annual Science Work Plan

Proposal Guidelines and Solicitation

February 17, 2012

GENERAL INFORMATION

Eligible Applicants:	Federal funds administered by the Northwest Climate Science Center (NW CSC) are available to institutions participating in the affiliated academic consortium ¹ , and USGS centers, field stations and laboratories.
Estimated Available Funds:	Approximately \$1 million may be available to fund projects that support NW CSC science priorities in Fiscal Year 2012.
Project funding amount:	Individual project funds will not exceed a total of \$150,000 per year.
Project Duration:	Not to exceed 24 months.
NW CSC Contact:	Dr. Gustavo Bisbal, Director NW Climate Science Center 326 Strand Hall – Oregon State University Corvallis, OR 97331 Office: 541.737.2525 Email: gbisbal@usgs.gov
Conference calls:	The NW CSC will host two call-in sessions to address questions on this solicitation. <ul style="list-style-type: none">• 9:00 to 10:00 a.m. Pacific Time, 22 February 2012• 10:00 to 11:00 a.m. Pacific Time, 27 February 2012 Call in number for both sessions: 703-648-4848, Code 57166#

¹ Institutions that participate in the NW CSC consortium include: Boise State University, Idaho National Laboratory, Idaho State University, Montana State University, Oregon Health and Science University, Oregon State University, Pacific Northwest National Laboratory, Portland State University, University of Idaho, University of Montana, University of Oregon, University of Washington, Washington State University, and Western Regional Climate Center.

PROGRAM DESCRIPTION

Background

The Department of the Interior (DOI) established the Northwest Climate Science Center (NW CSC or Center) in 2010 to address the challenges presented by climate change and variability in the Pacific Northwest. The Center's purpose is to provide scientific information, tools, and techniques that managers and other parties interested in land, water, wildlife, and cultural resources can use to anticipate, monitor, and adapt to a changing climate. The science objectives of the NW CSC are driven primarily by a Climate Science Agenda (Agenda) included in the NW CSC Strategic Plan released in January, 2012 and available online at <http://www.doi.gov/csc/northwest/Climate-Science-Agenda.cfm>. The Agenda establishes high-level climate science priorities for the period 2011-2015. The NW CSC developed the Agenda with the advice and guidance from an Executive Stakeholder Advisory Committee (ESAC) composed of executives from 22 entities including 13 federal agencies, three State agencies, three Tribal entities, and three Landscape Conservation Cooperatives (LCCs) within the NW CSC region.

The 2011-2015 NW CSC Science Agenda will be progressively addressed through the sequential implementation of Annual Science Work Plans and other activities designed to enhance, leverage, and coordinate the collective contribution of individual projects to management-relevant climate science. The guidance contained in Annual Science Work Plans identifies topical science needs inviting research project proposals for that year, and provides practical instructions regarding the solicitation, review, and selection of those proposals. The NW CSC sets annual science needs in consultation with, and taking into consideration comments from, the following sources:

- The Executive Stakeholder Advisory Committee (ESAC);
- Coordinators for the Great Northern, Great Basin, and North Pacific LCCs;
- USGS Leadership headquartered at the National Climate Change and Wildlife Science Center (NCCWSC) in Reston, Virginia;
- Other Climate Science Center Directors;
- The NOAA-funded Pacific Northwest Climate Impacts Research Consortium (CIRC);

Science needs

In Fiscal Year 2012, the NW CSC is interested in inviting Pre-proposals (PREPS) that address the following topical science needs:

1. *Response of hydrologic systems to future climate:* Advance understanding of the response of hydrologic systems to future predicted climate, including changes in snow hydrology, alpine glaciers, streams, lakes, groundwater systems, wetlands, water temperature, water quality, and extreme events. This need relates to effects on aquatic habitat (see item 3, below), as well as the timing and amount of water available for agricultural and municipal use, recreation, wildlife and stock use, and power generation. The hydrologic response also affects understanding of drought, flood risk, reservoir operations, and land management.
2. *Vulnerability of species, populations, and ecosystems to climate change:* Assess the vulnerabilities (as well as resiliencies) of terrestrial, aquatic, and near-shore marine ecosystems, as well as individual species and populations, to climate change.
3. *Aquatic integrity related to climate change:* Determine the effects of climate change on the overall condition and quality of native fish communities, watershed functions, and the full array of ecosystem processes that natural waters (and associated uplands) provide.

4. *Disturbance occurrence due to climate change:* Continue to advance understanding and modeling of changes in fire regimes, and the ecology and potential impacts of invasive species, plant and animal diseases, pathogens, and epidemic insect infestations. These elements represent important potential threats to biodiversity, plant and animal assemblages, and ecosystem services.
5. *Climate change monitoring and observation systems:* Inventory existing monitoring networks and evaluate their capacity to help understand the response of physical and biological systems to climate change, and inform assessment and modification of adaptation efforts. Evaluate the need to expand and/or modify networks as necessary, and, where feasible, integrate monitoring efforts across climate research projects and agencies in the region.

In preparation for drafting PREPs, any party interested in responding to this solicitation should keep the following considerations in mind, as they may ultimately help determine how well a PREP aligns with the NW CSC perspective on what projects best address the Climate Science Agenda. The NW CSC welcomes projects that:

- respond directly to the topical science needs identified above;
- pursue reliable climate science in an open and objective manner that is policy relevant, but not policy prescriptive. PREPs should clearly identify relevant management needs that the research project is intended to address;
- are designed with strong interaction between investigators and the intended users of the scientific output of the project. Engagement of managers on the study team, creation of practitioner advisory teams, periodic "check in" meetings with the targeted users, and similar strategies should be considered;
- implement the vision of the CSCs as a joint partnership between the academic, USGS, and Federal research communities in bringing scientific expertise to resource management problems;
- contribute to address the needs of Landscape Conservation Cooperatives (LCC);
- integrate the human dimension (i.e., safety, health, social, economic, etc.) in the context of research projects focused on the physical and biological responses to climate change. Understanding the connections between social and ecological aspects will be important to our ability to fully address the implications of climate change.
- provide results with a broad geographic application throughout the Northwest region.
- coordinate funding with other sources of funds and leverage additional resources to carry out the proposed project. While a match is not required, cost-leveraging helps extend the overall funding capabilities of this program and may bolster partnerships.
- include information about the type of data to be collected and utilized and any special needs for data services during the proposed project.
- provide opportunities for young researchers. The NW CSC seeks to expand its contribution to the Northwest community by promoting broad participation and supporting the education of early-career scientists and post-docs.

FUNDING AND ELIGIBILITY

In Fiscal Year 2012, Federal funds administered by the NW CSC will be approximately \$1,000,000, to support projects funded through this solicitation and other priorities at the discretion of the NW CSC Director. The core funding for the NW CSC comes from the Department of the Interior through the U.S. Geological Survey (USGS). Projects may be funded for a maximum of 24 months. Project awards may not exceed \$150,000 per year.

Eligible applicants for this program are the institutions participating in the affiliated academic consortium (see footnote 1 on page 1), and USGS centers, field stations and laboratories. Each proposal must have a Principal Investigator (PI) from an eligible entity. Parties from other organizations (Federal, state, tribal, or other) not listed here, are encouraged to establish working partnerships with one of the recognized eligible applicants to seek participation as part of a project headed by a NW CSC/university consortium or USGS PI.

APPLICATION PROCESS AND TIMELINE

Application Process

1. Submit Pre-proposal (PREP). All parties interested in responding to this solicitation must first submit a PREP. The PREP application template is available in Appendix A. **PREPs will be accepted until March, 12, 2012, 5:00 p.m. (PST), without exceptions.** PREPs must be submitted via email to **nwcsc_2012proposals@usgs.gov**. For ease of evaluation, all electronic submissions must be made available both in Word and PDF formats.

Failure to follow these guidelines may result in the PREP being removed from consideration. An acknowledgment receipt will be sent to the applicant within five business days.

2. Evaluation. An evaluation process will start on March 13, 2012. Applicants may be contacted to provide additional or clarifying information. The evaluation of PREPs will be conducted with the assistance of a team of independent national experts (Expert Team) that will review and rank the proposed research. Entities formulating PREPs will be different and independent of the Expert Team. The Expert Team will be instructed to use the following criteria to evaluate PREPs, and the respective criteria scores will be weighed according to the percentages in parentheses:

Relevance / Applicability to Management Needs

- (10%) Clearly demonstrates a connection to the CSC Climate Science Agenda.
- (10%) Identifies relevancy of project results to fish, wildlife, or habitat management needs.
- (5%) Implements the shared science mission of the NW CSC across University and Federal research agencies.

Knowledge Transfer

- (10%) Engages targeted users in the study design and describes outreach components to disseminate research findings and information.
- (10%) Identifies human dimension of project topic (i.e., safety, health, social, economic, etc.).

Scientific Design

- (15%) Scientific soundness of overall methodological approach to the project.
- (10%) Project results have broad geographic application (regional and/or beyond).
- (5%) Describes desired outcomes and indicates the type of data to be collected and special data service needs.

Leveraging & Capacity Building

- (10%) Coordinates funding with collaborating partners and leverages additional resources to carry out the proposed project.
- (10%) Builds upon existing work and capacity or complements related research underway in other climate science projects in the region.
- (5%) Provides opportunities to early-career researchers and post-docs to participate.

3. Request for Full Proposal. Selected applicants will be invited to develop full proposals. Full proposals will include a statement of work, proposed deliverables, timeline, evaluation plan, detailed budget, and data management plan. Because of the federal source of this funding, all proposals must comply with USGS requirements regarding data management, as specified in the USGS Data Sharing Policy found at https://nccwsc.usgs.gov/documents/policy/Data%20Sharing%20Policy_NCCWSC_CSC_v1_final.pdf. Projects funded by the NW CSC will require periodic progress reporting during the project, a final project closeout report, and clearly identified final product(s) for publication or other dissemination. The NW CSC Director reserves the right to interview key participants, negotiate terms and details, and provide input into the final proposal. The due date for full proposals will be approximately 4 (four) weeks after the NW CSC requests them from the applicants. An invitation to submit a full proposal does not necessarily mean that the project will be funded.

4. Full Proposal Review and Award: The NW CSC will review the full proposals and will negotiate contracts with successful applicants approximately 3 weeks after full proposals are submitted. Final discretion on funding decisions for specific projects remains with the NW CSC Director.

Timeline

- **February 17, 2012** – Release of NW CSC Proposal Guidelines and Solicitation.
- **March 12, 2012** – Pre-proposals are due from interested parties to the NW CSC (nwcsc2012_proposals@usgs.gov) by 5:00 p.m. (PST), without exceptions.
- **Week of March 26, 2012** – Finalize review of Pre-proposals and selection of applicants for drafting of full proposals.
- **Week of April 23, 2012** – Full proposals due to the NW CSC (exact date to be confirmed at time of invitation for a full proposal).
- **Week of May 14** – Proposal details negotiated and contracts drafted.

APPENDIX A – Pre-proposal (PREP) Application Template

SECTION 1. PROJECT ADMINISTRATIVE INFORMATION (one page)

- Project title
- Short description (generally one sentence)
- Name of Lead Agency/Institution/Organization requesting funding
- Project Lead Contact or Principal Investigator
- Mailing Address, City, State, Zip
- Telephone
- Fax
- E-mail

SECTION 2. PROJECT SUMMARY (two pages)

Please provide a brief narrative summary of the project in **no more than two pages**. Be sure to include all necessary information to address the above selection criteria, including the following:

- Specific research question/s to be addressed and its/their management relevance.
- Significance of project to addressing the NW CSC Climate Science Agenda.
- Relevance of anticipated project results to addressing fish, wildlife, or habitat issues, and to aspects of human significance (i.e., health, social, economic, etc.).
- How the project complements related climate science projects in the region.
- Brief description of overall methodological approach to the project and its anticipated contribution to the advancement of science.
- The geographic application area for the project.
- Anticipated outcomes, data types, and data management approach.
- Brief description of previous work or existing capacity.

SECTION 3. PARTNERSHIPS & COMMUNICATION (one page)

- Description of any collaborative partnerships involved in this project.
- List of additional investigators and affiliations involved in this project.
- Potential links to LCC and other DOI Partner Strategic Science needs.
- Outreach opportunities to engage targeted users in the study design, and to disseminate research findings and information.
- Anticipated deliverables
- Opportunities provided to early-career researchers and post-docs.

SECTION 4. ESTIMATED BUDGET (one page)

- Project Fiscal Contact
- Telephone
- E-mail
- Total project cost
- Total NW CSC funding request
- Agency or university overhead (general indirect costs not directly associated with the project).
- Funding contributions from partners associated with the project proposal.